

## 5.4 Western Mixed-grass/Short-grass Prairie (Missouri Slope)

**Area:** 9,450,000 acres (3,828,000 ha)

**Description and Overall Condition:** This landscape component includes the Western mixed-grass prairie and short-grass prairie of the Missouri Slope and associated wetlands. This semiarid, unglaciated region of North Dakota includes level to rolling plains topography with isolated sandstone buttes or badlands formations. The Missouri River System/Breaks is considered by some to be a component of or the boundary between the Missouri Coteau and Missouri Slope, but is described within the Stream, Rivers, and Riparian landscape component (see sections 5.7.a for information on this focus area). Shrub-steppe, or prairie that has a large component of sagebrush, occurs scattered throughout. Wetland basins are minimal, probably constituting only several hundred-thousand acres. Land use is predominantly dryland farming of spring and winter wheat, barley, sunflowers and corn, interspersed with cattle grazing. However, landcover classifications indicate there is a fair amount of native vegetation remaining. The oil and gas industry is expanding in the western portion of this region.

### Predominant Natural Vegetation:

Grasses: blue grama, Western wheatgrass, prairie junegrass, needle-and-thread, needleleaf sedge, buffalo grass, spikemoss, sixweeks fescue, green needlegrass, plains muhly, little bluestem, threadleaf sedge

Forbs: yarrow, gumweed, skeleton weed, purple coneflower, sandlily, white wild onion, death camas, buffalo-bean, purple loco, silverleaf, plains pricklypear, ball cactus, moss phlox, white beardtongue, fringed sage

### Associated Species of Conservation Priority:

Birds	Mammals	Reptiles/Amphibians
Northern Pintail Northern Harrier Ferruginous Hawk Swainson's Hawk Golden Eagle Prairie Falcon Sharp-tailed Grouse Greater Sage-Grouse Upland Sandpiper Long-billed Curlew Wilson's Phalarope Burrowing Owl Short-eared Owl Loggerhead Shrike Sprague's Pipit Brewer's Sparrow Lark Bunting Grasshopper Sparrow Baird's Sparrow Chestnut-collared Longspur McCown's Longspur	Hispid Pocket Mouse Sagebrush Vole Black-tailed Prairie Dog *Swift Fox *Black-footed Ferret	Plains Spadefoot Short-horned Lizard Northern Sagebrush Lizard Western Hognose Snake

### Other Characteristic Wildlife:

Birds: mallard, blue-winged teal, Northern shoveler, gadwall, red-tailed hawk, American kestrel, merlin, gray partridge, ring-necked pheasant, wild turkey, killdeer, mourning dove, common nighthawk, Western kingbird, Eastern kingbird, horned lark, Eastern bluebird, mountain bluebird,

common yellowthroat, clay-colored sparrow, vesper sparrow, lark sparrow, Savannah sparrow, Western meadowlark, brown-headed cowbird

Mammals: thirteen-lined ground squirrel, Northern pocket gopher, olive-backed pocket mouse, Ord's kangaroo rat, Western harvest mouse, deer mouse, Northern grasshopper mouse, prairie vole, meadow vole, meadow jumping mouse, coyote, red fox, raccoon, badger, striped skunk, mountain lion, bobcat, elk, mule deer, white-tailed deer, pronghorn

Reptiles and Amphibians: Woodhouse's toad, Great Plains toad, Northern leopard frog, Western chorus frog, tiger salamander, common garter snake, plains garter snake, yellowbelly racer, bullsnake, prairie rattlesnake

#### **5.4.a Focus Area: Big Sagebrush Shrub-Steppe**

**Area:** 300,000 acres (120,000 ha)

**Public Landholdings:** 69,000 acres (NDSLD 15,000; USFS 19,000; USBLM 35,000)

**Description and Condition:** Eroded buttes, scoria mounds, and salt pans make this area similar to the badlands. Minimal agriculture and low human occupancy but the oil and gas industry is prevalent. This characteristic big sagebrush ecosystem has been altered by livestock grazing, conversion to cropland, and in more recent years, oil development. What remains of this fragile habitat is severely fragmented and faces a series of continual threats.

**Key Species of Conservation Priority**

Birds: greater sage grouse, Brewer's sparrow

Mammals: sagebrush vole

Reptiles and Amphibians: short-horned lizard, sagebrush lizard



*Big sagebrush in extreme southwestern North Dakota.*

#### 5.4.b Conservation Problems and Actions for the Western Mixed-grass/Short-grass Prairie (Missouri Slope)

WESTERN MIXED-GRASS/SHORTGRASS PRAIRIE (Missouri Slope)				
CONSERVATION PROBLEM	CONSERVATION ACTION	POTENTIAL PARTNERS		
Direct Loss of Habitat				
Moderate loss of native prairie.	Protect native prairie where possible (e.g. easements or land acquisition).	NDGFD USFWS USFS NRCS NGPJV	NDNRT DU TNC Audubon PF	Private Landowners
Habitat Fragmentation				
Highly fragmented with roads, shelterbelts, and agricultural practices.	Consider removal of dilapidated shelterbelts or stands of trees within grassland, particularly within 50 meters of grassland patches >100 ha.	NDGFD USFWS USFS NRCS NGPJV	TNC	Private Landowners  Volunteers
Habitat Degradation				
Improper grazing practices.	Implement grazing systems to benefit mixed- and shortgrass species.	NDGFD NDSLD USFWS USFS NRCS NGPJV	DU TNC	Private Landowners  NDSUEXT
Loss of fire regime.	Work cooperatively with state and federal agencies to develop BMPs that promote use of fire.	NDGFD NDSLD USFWS USFS NRCS	TNC	
Long term haying of native prairie.	Find alternative hay sources (e.g. grass banks)	No partners identified.		
Invasive and Noxious Species				
Leafy spurge of great concern, particularly in and around the SNG.	Control noxious weeds through biological and chemical methods.	NDGFD NDSLD USFWS USFS NRCS	NDWCA	Private Landowners NDSUEXT
Woody encroachment.	Use fire or other tools to prevent woody invasion of grassland.	NDGFD NDSLD USFWS USFS NRCS	TNC	
Pesticides				
Pesticide drift and application.	Work with state and federal agencies to enforce existing pesticide regulations.	NDGFD NDDAG USFWS USFS		Private Landowners
Industrial Development				
Wind energy potential is fair to excellent.	Coordinate with wind energy companies to minimize impacts.	NDGFD USFWS	WIND	

WESTERN MIXED-GRASS/SHORTGRASS PRAIRIE (Missouri Slope)				
CONSERVATION PROBLEM		CONSERVATION ACTION		POTENTIAL PARTNERS
Data Gaps				
Lack of baseline information on SoCP.	Survey areas of data gaps. Conduct research/surveys to establish baseline information on SoCP.	NDGFD NDSLD USFWS USFS NPWRC NGPJV	DU TNC	Volunteers Universities
Conservation Awareness				
Continuing education.	Create informational brochures, use tools such as television, radio, newspapers, magazines, and public forums, to provide information to citizens on the need for conservation of fish and wildlife resources and habitat.	NDGFD USFWS USFS NRCS	DU TNC Audubon	NDSUEXT